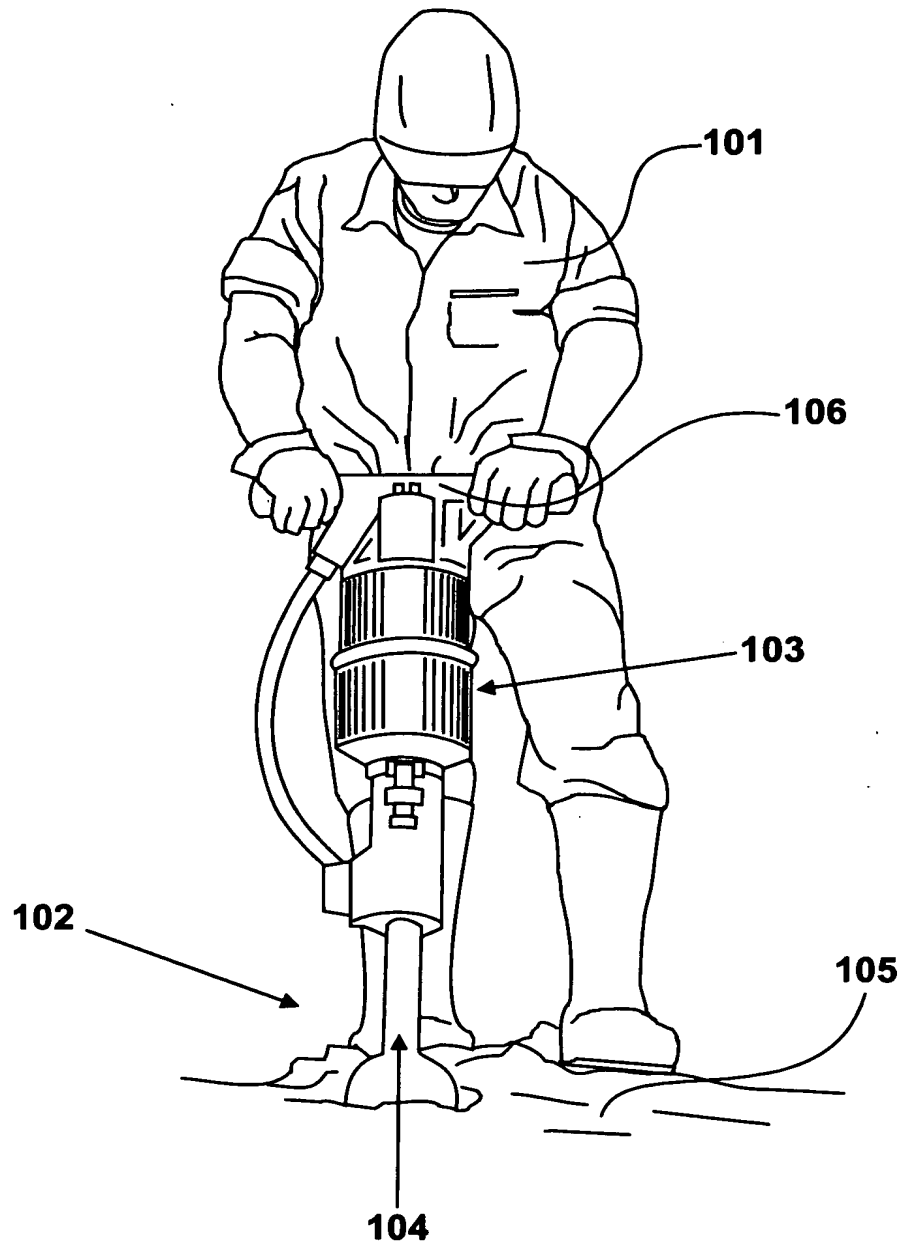
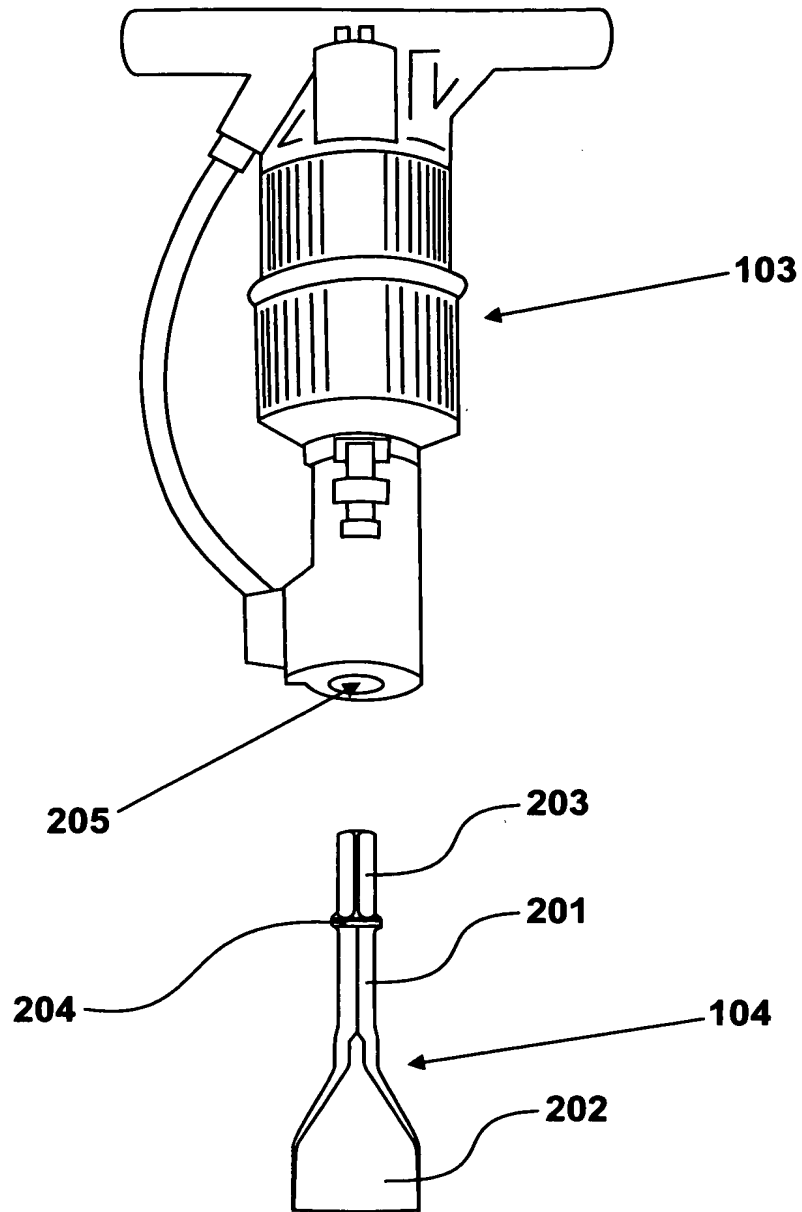


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*Figure 1*

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*Figure 2*

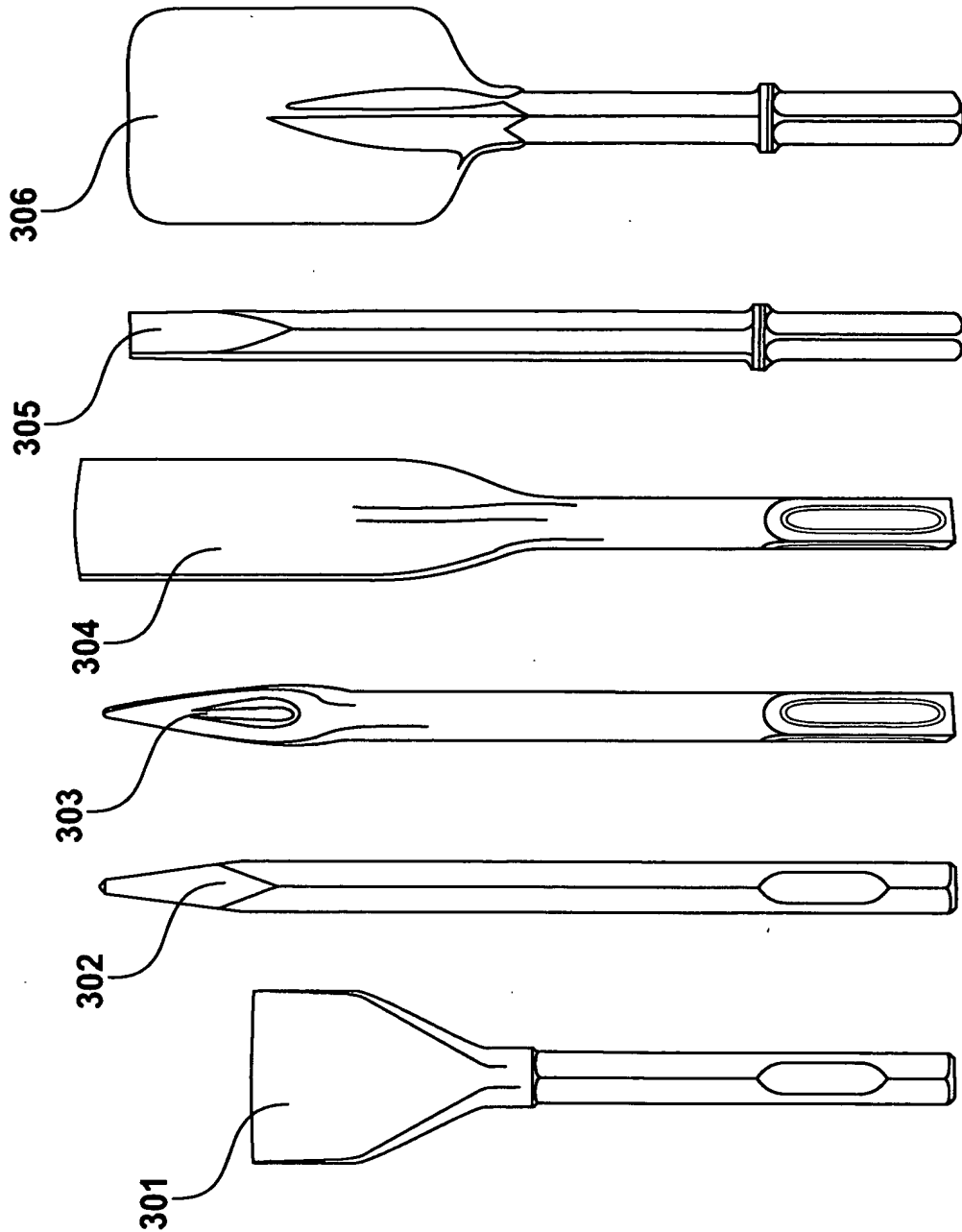
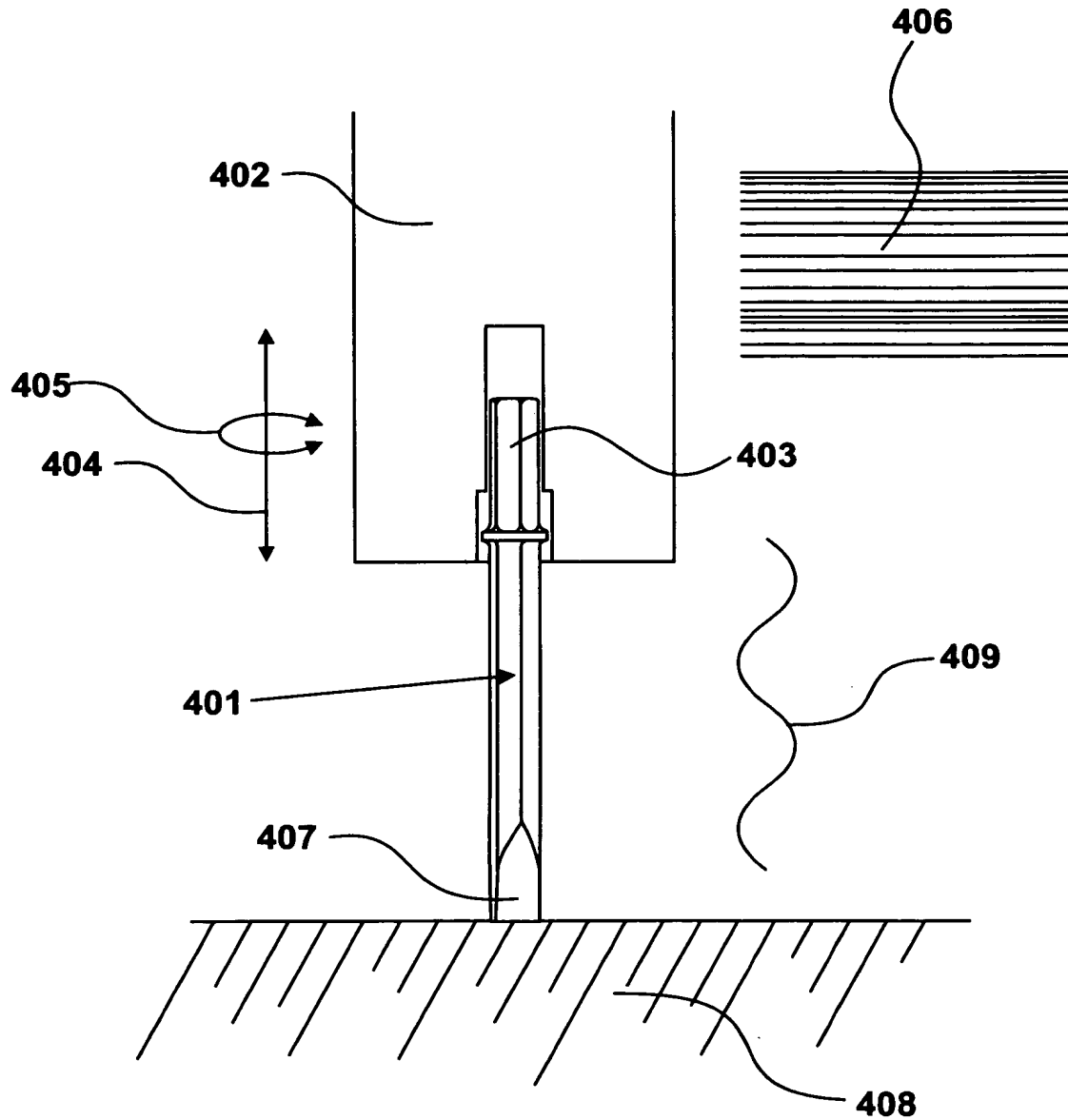


Figure 3

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*Figure 4*

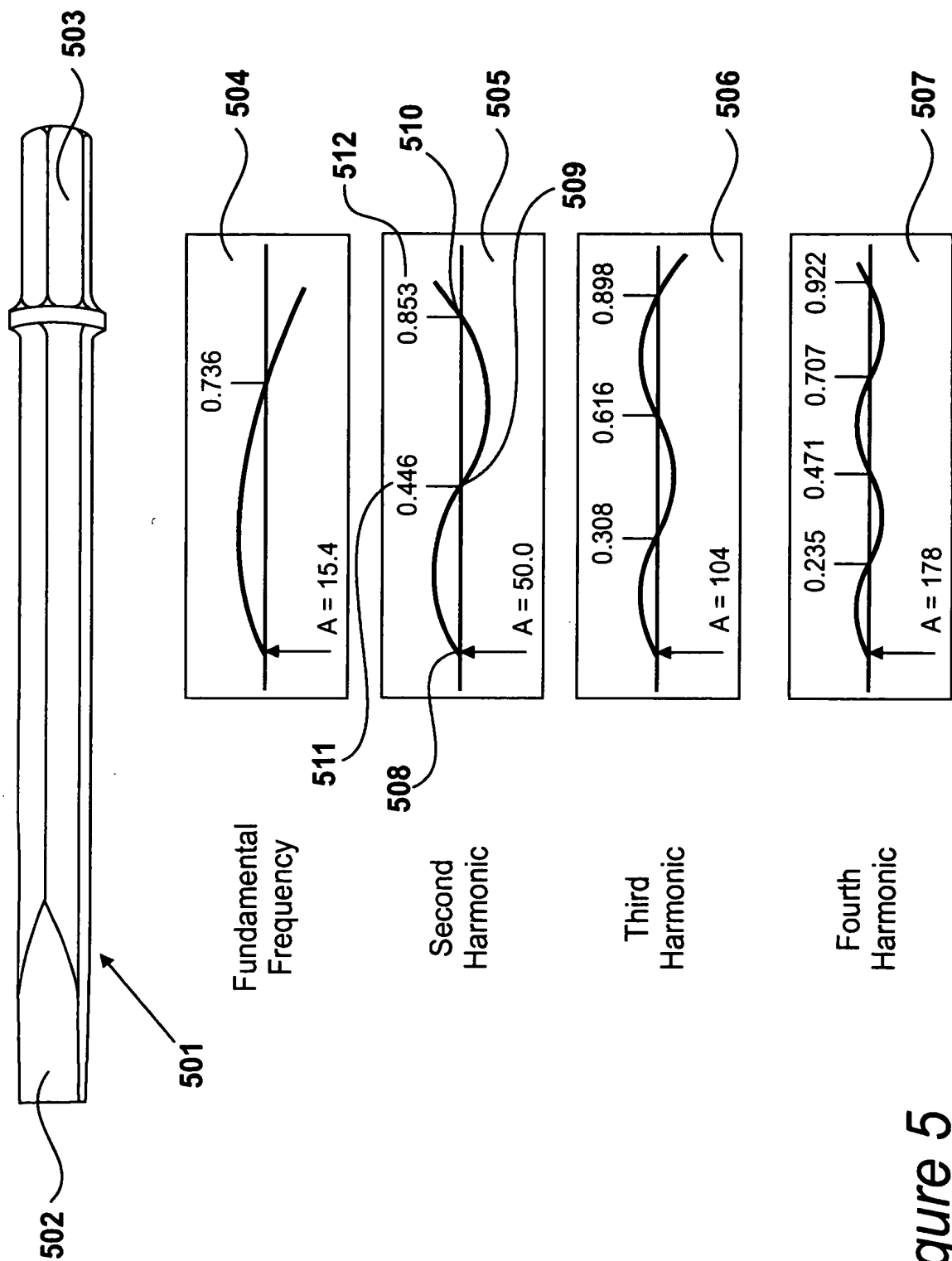


Figure 5

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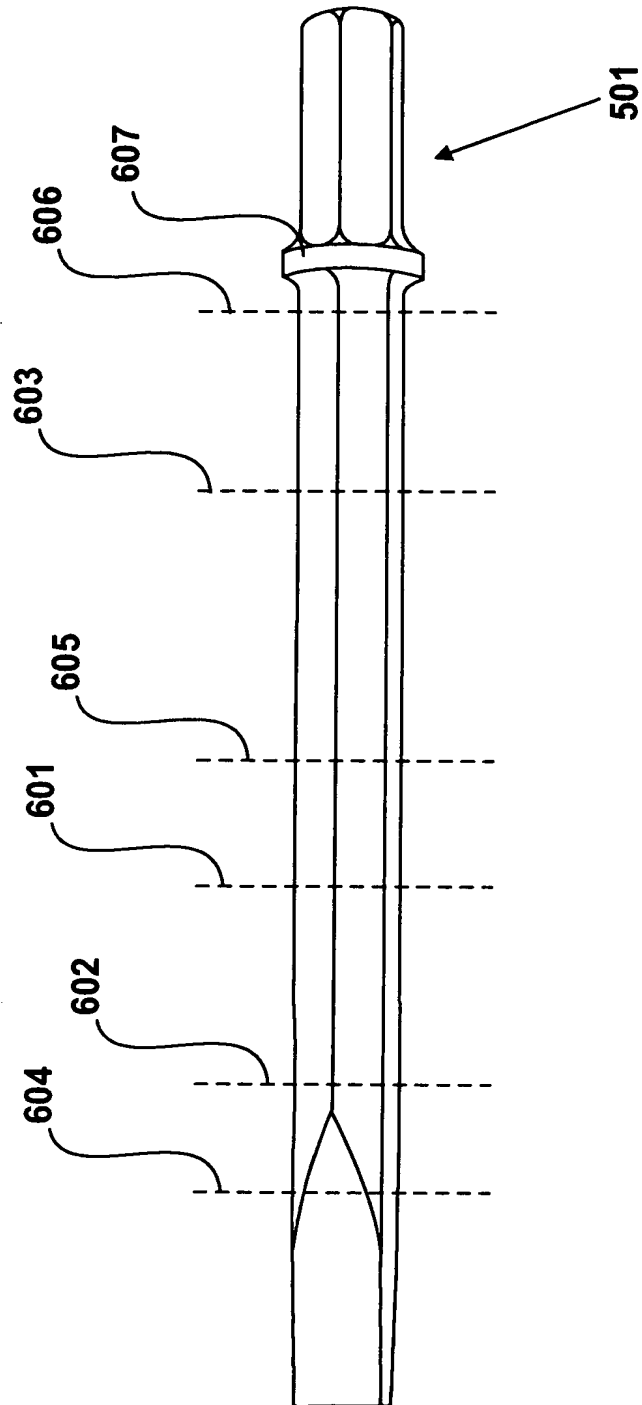


Figure 6

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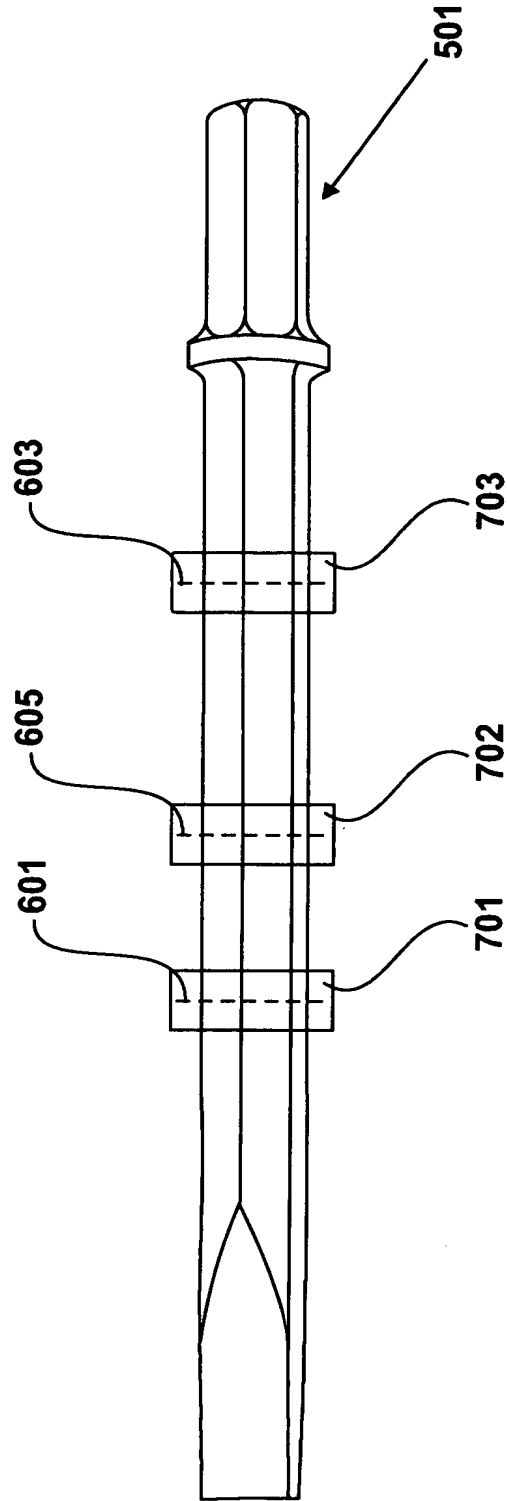


Figure 7

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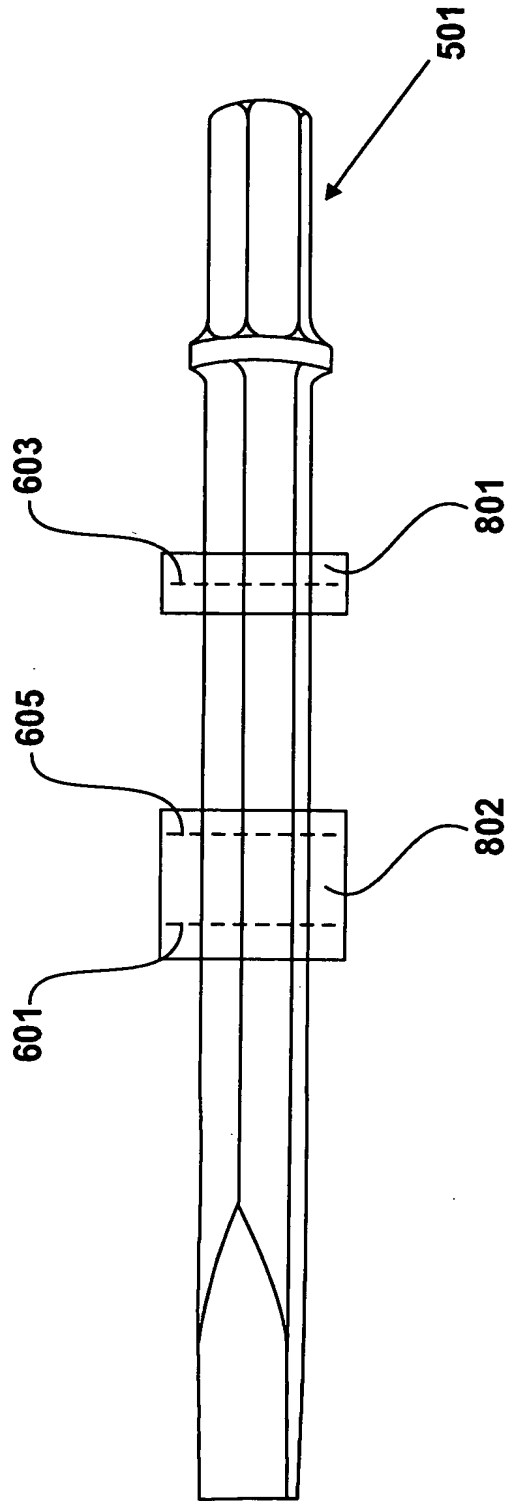


Figure 8



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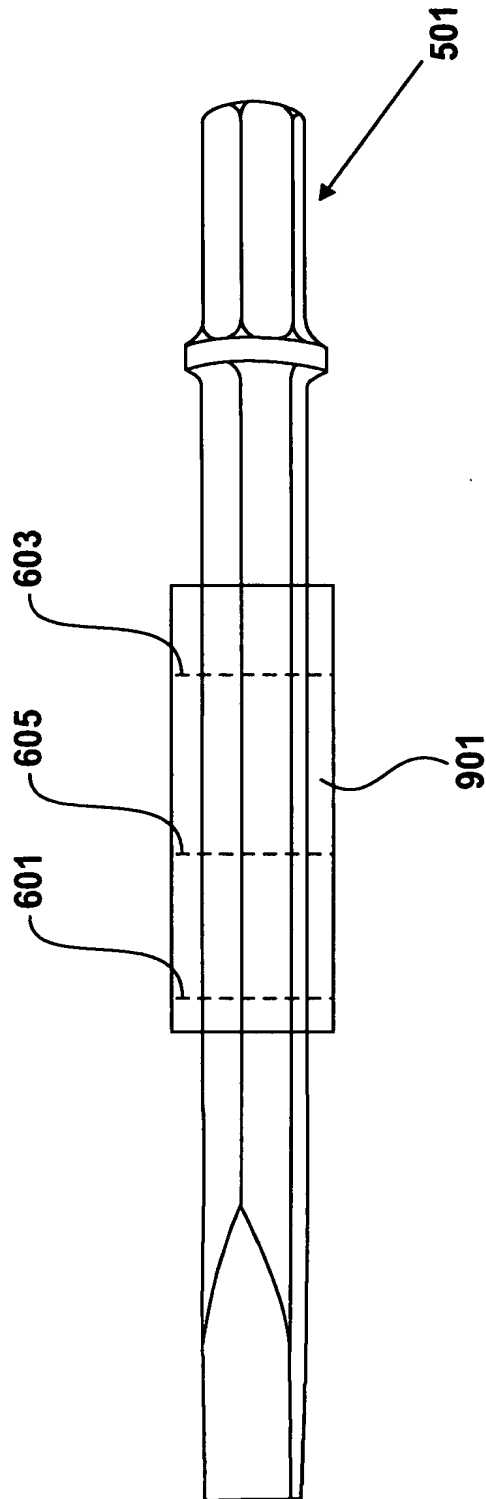


Figure 9

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Beams of uniform section and uniformly distributed load

Natural frequencies  $f_n = \frac{A}{2} \sqrt{\frac{EI}{\rho S l^4}}$

where E = Young's modulus ( $\text{Nm}^{-2}$ )  
I = Area moment of inertia of beam cross section ( $\text{Kg m}^2$ )  
l = Length of beam (m)  
 $\rho$  = Mass density of beam material ( $\text{Kg m}^{-3}$ )  
S = Area of cross section ( $\text{m}^2$ )  
A = Coefficient from Figure 5

$\lambda = \frac{C}{f}$

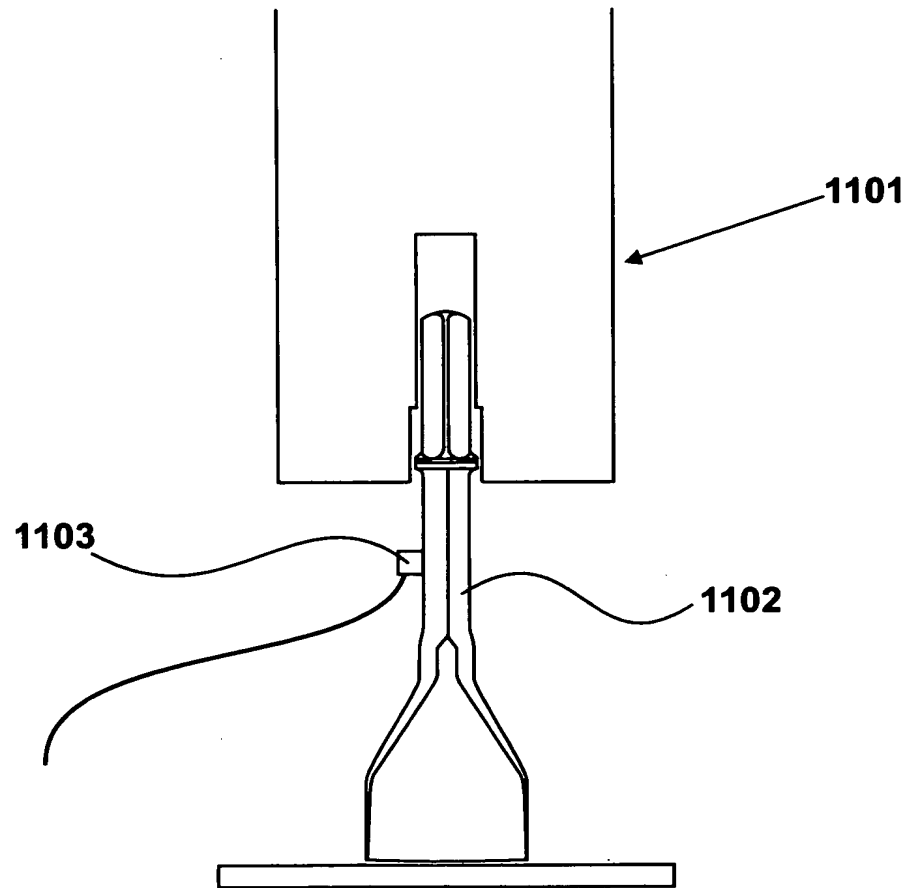
where C = wave speed ( $\text{ms}^{-1}$ )  
f = Frequency (Hz)  
 $\lambda$  = Wavelength (m)

Figure 10

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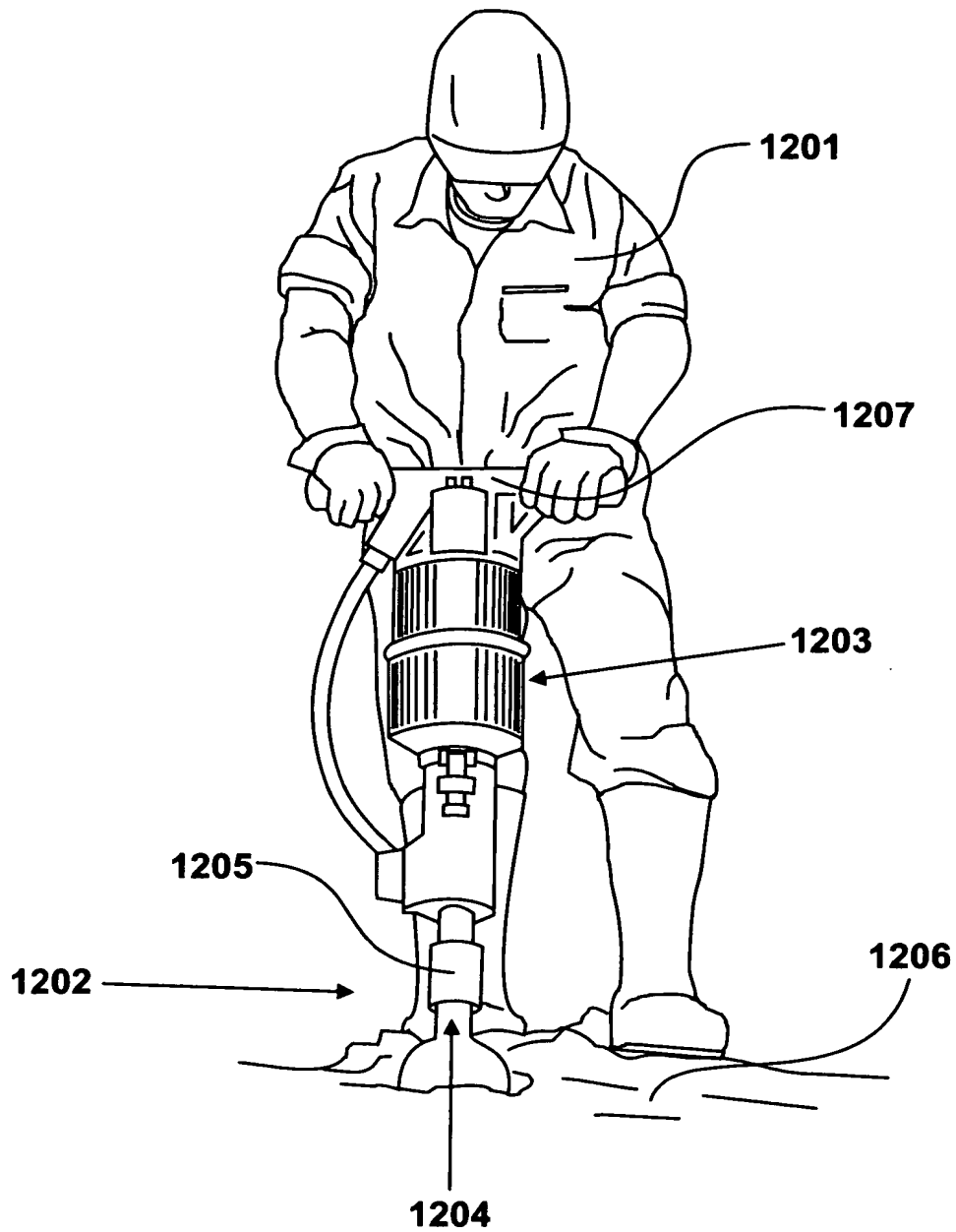
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*Figure 11*

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*Figure 12*